

590
1/29

#2

OIIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/023,523

DATE: 02/11/2002

TIME: 08:34:36

Input Set : N:\Crf3\RULE60\10023523.raw

Output Set: N:\CRF3\02112002\J023523.raw

1 <110> APPLICANT: Lees, Ann M.
 2 Lees, Robert S.
 3 Law, Simon W.
 4 Arjona, Anibal A.
 5 <120> TITLE OF INVENTION: NOVEL LOW DENSITY LIPOPROTEIN BINDING
 6 PROTEINS AND THEIR USE IN DIAGNOSING AND TREATING
 7 ATHEROSCLEROSIS
 8 <130> FILE REFERENCE: 10797-004001
 9 <140> CURRENT APPLICATION NUMBER: US/10/023,523
 10 <141> CURRENT FILING DATE: 2001-12-17
 11 <150> PRIOR APPLICATION NUMBER: US/09/616,289
 12 <151> PRIOR FILING DATE: 2000-07-14
 13 <150> PRIOR APPLICATION NUMBER: US 09/517,849
 14 <151> PRIOR FILING DATE: 2000-03-02
 15 <150> PRIOR APPLICATION NUMBER: US 08/979,608
 16 <151> PRIOR FILING DATE: 1997-11-26
 17 <150> PRIOR APPLICATION NUMBER: US 60/031,930
 18 <151> PRIOR FILING DATE: 1996-11-27
 19 <150> PRIOR APPLICATION NUMBER: US 60/048,547
 20 <151> PRIOR FILING DATE: 1997-06-03
 21 <160> NUMBER OF SEQ ID NOS: 53
 22 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 24 <210> SEQ ID NO: 1
 25 <211> LENGTH: 151
 26 <212> TYPE: PRT
 27 <213> ORGANISM: Oryctolagus cuniculus
 28 <400> SEQUENCE: 1
 29 Met Ser Lys Asn Thr Val Ser Ser Ala Arg Phe Arg Lys Val Asp Val
 30 1 5 10 15
 31 Asp Glu Tyr Asp Glu Asn Lys Phe Val Asp Glu Glu Asp Gly Gly Asp
 32 20 25 30
 33 Gly Gln Ala Gly Pro Asp Glu Gly Val Asp Ser Cys Leu Arg Gln
 34 35 40 45
 35 Gly Asn Met Thr Ala Ala Leu Gln Ala Ala Leu Lys Asn Pro Pro Ile
 36 50 55 60
 37 Asn Thr Arg Ser Gln Ala Val Lys Asp Arg Ala Gly Ser Ile Val Leu
 38 65 70 75 80
 39 Lys Val Leu Ile Ser Phe Lys Ala Gly Asp Ile Glu Lys Ala Val Gln
 40 85 90 95
 41 Ser Leu Asp Arg Asn Gly Val Asp Leu Leu Met Lys Tyr Ile Tyr Lys
 42 100 105 110
 43 Gly Phe Glu Ser Pro Ser Asp Asn Ser Ser Ala Val Leu Leu Gln Trp
 44 115 120 125

ENTERED

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```

45      His Glu Lys Ala Leu Ala Ala Gly Gly Val Gly Ser Ile Val Arg Val
46          130                      135                      140
47      Leu Thr Ala Arg Lys Thr Val
48          145                      150
50 <210> SEQ ID NO: 2
51 <211> LENGTH: 317
52 <212> TYPE: PRT
53 <213> ORGANISM: Oryctolagus cuniculus
54 <220> FEATURE:
55 <221> NAME/KEY: VARIANT
56 <222> LOCATION: (1)...(317)
57 <223> OTHER INFORMATION: Xaa = Any Amino Acid
58 <400> SEQUENCE: 2
W--> 59      Asp Cys Arg Ser Ser Ser Asn Asn Arg Xaa Pro Lys Gly Gly Ala Ala
60          1                      5                      10                      15
61      Arg Ala Gly Gly Pro Ala Arg Pro Val Ser Leu Arg Glu Val Val Arg
62          20                      25                      30
63      Tyr Leu Gly Gly Ser Ser Gly Ala Gly Gly Arg Leu Thr Arg Gly Arg
64          35                      40                      45
65      Val Gln Gly Leu Leu Glu Glu Glu Ala Ala Ala Arg Gly Arg Leu Glu
66          50                      55                      60
67      Arg Thr Arg Leu Gly Ala Leu Ala Leu Pro Arg Gly Asp Arg Pro Gly
68          65                      70                      75                      80
69      Arg Ala Pro Pro Ala Ala Ser Ala Arg Ala Ala Arg Asn Lys Arg Ala
70          85                      90                      95
71      Gly Glu Glu Arg Val Leu Glu Lys Glu Glu Glu Glu Glu Glu Glu
72          100                     105                     110
73      Asp Asp Glu Asp Asp Asp Asp Asp Val Val Ser Glu Gly Ser Glu Val
74          115                     120                     125
75      Pro Glu Ser Asp Arg Pro Ala Gly Ala Gln His His Gln Leu Asn Gly
76          130                     135                     140
77      Gly Glu Arg Gly Pro Gln Thr Ala Lys Glu Arg Ala Lys Glu Trp Ser
78          145                     150                     155                     160
79      Leu Cys Gly Pro His Pro Gly Gln Glu Glu Gly Arg Gly Pro Ala Ala
80          165                     170                     175
81      Gly Ser Gly Thr Arg Gln Val Phe Ser Met Ala Ala Leu Ser Lys Glu
82          180                     185                     190
83      Gly Gly Ser Ala Ser Ser Thr Thr Gly Pro Asp Ser Pro Ser Pro Val
84          195                     200                     205
85      Pro Leu Pro Pro Gly Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro
86          210                     215                     220
87      Phe Gly Cys Pro Ala Gly Arg Lys Glu Lys Pro Ala Asp Pro Val Glu
88          225                     230                     235                     240
89      Trp Thr Val Met Asp Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro
90          245                     250                     255
91      Glu Gln Ala Thr Ala Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu
92          260                     265                     270
93      Leu Leu Met Gln Arg Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu
94          275                     280                     285

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```

95      Gly Pro Ala Leu Lys Ile Tyr Glu His His Ile Lys Val Leu Gln Gln
96          290                      295                      300
97      Gly His Phe Glu Asp Asp Asp Pro Glu Gly Phe Leu Gly
98          305                      310                      315
100 <210> SEQ ID NO: 3
101 <211> LENGTH: 232
102 <212> TYPE: PRT
103 <213> ORGANISM: Oryctolagus cuniculus
104 <400> SEQUENCE: 3
105      Ala Ser Ala Arg Ala Ala Arg Asn Lys Arg Ala Gly Glu Glu Arg Val
106          1                      5                      10                      15
107      Leu Glu Lys Glu Glu Glu Glu Glu Glu Glu Glu Asp Asp Glu Asp Asp
108          20                      25                      30
109      Asp Asp Asp Val Val Ser Glu Gly Ser Glu Val Pro Glu Ser Asp Arg
110          35                      40                      45
111      Pro Ala Gly Ala Gln His His Gln Leu Asn Gly Gly Glu Arg Gly Pro
112          50                      55                      60
113      Gln Thr Ala Lys Glu Arg Ala Lys Glu Trp Ser Leu Cys Gly Pro His
114          65                      70                      75                      80
115      Pro Gly Gln Glu Glu Gly Arg Gly Pro Ala Ala Gly Ser Gly Thr Arg
116          85                      90                      95
117      Gln Val Phe Ser Met Ala Ala Leu Ser Lys Glu Gly Gly Ser Ala Ser
118          100                     105                     110
119      Ser Thr Thr Gly Pro Asp Ser Pro Ser Pro Val Pro Leu Pro Pro Gly
120          115                     120                     125
121      Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro Phe Gly Cys Pro Ala
122          130                     135                     140
123      Gly Arg Lys Glu Lys Pro Ala Asp Pro Val Glu Trp Thr Val Met Asp
124          145                     150                     155                     160
125      Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu Gln Ala Thr Ala
126          165                     170                     175
127      Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu Leu Leu Met Gln Arg
128          180                     185                     190
129      Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu Gly Pro Ala Leu Lys
130          195                     200                     205
131      Ile Tyr Glu His His Ile Lys Val Leu Gln Gln Gly His Phe Glu Asp
132          210                     215                     220
133      Asp Asp Pro Glu Gly Phe Leu Gly
134          225                     230
136 <210> SEQ ID NO: 4
137 <211> LENGTH: 252
138 <212> TYPE: PRT
139 <213> ORGANISM: Oryctolagus cuniculus
140 <400> SEQUENCE: 4
141      Thr Arg Leu Gly Ala Leu Ala Leu Pro Arg Gly Asp Arg Pro Gly Arg
142          1                      5                      10                      15
143      Ala Pro Pro Ala Ala Ser Ala Arg Ala Ala Arg Asn Lys Arg Ala Gly
144          20                      25                      30
145      Glu Glu Arg Val Leu Glu Lys Glu Glu Glu Glu Glu Glu Glu Asp

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Output Set: N:\CRF3\02112002\J023523.raw

```

146          35          40          45
147    Asp Glu Asp Asp Asp Asp Asp Val Val Ser Glu Gly Ser Glu Val Pro
148          50          55          60
149    Glu Ser Asp Arg Pro Ala Gly Ala Gln His His Gln Leu Asn Gly Gly
150    65          70          75          80
151    Glu Arg Gly Pro Gln Thr Ala Lys Glu Arg Ala Lys Glu Trp Ser Leu
152          85          90          95
153    Cys Gly Pro His Pro Gly Gln Glu Glu Gly Arg Gly Pro Ala Ala Gly
154          100          105          110
155    Ser Gly Thr Arg Gln Val Phe Ser Met Ala Ala Leu Ser Lys Glu Gly
156          115          120          125
157    Gly Ser Ala Ser Ser Thr Thr Gly Pro Asp Ser Pro Ser Pro Val Pro
158          130          135          140
159    Leu Pro Pro Gly Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro Phe
160    145          150          155          160
161    Gly Cys Pro Ala Gly Arg Lys Glu Lys Pro Ala Asp Pro Val Glu Trp
162          165          170          175
163    Thr Val Met Asp Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu
164          180          185          190
165    Gln Ala Thr Ala Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu Leu
166    195          200          205
167    Leu Met Gln Arg Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu Gly
168    210          215          220
169    Pro Ala Leu Lys Ile Tyr Glu His His Ile Lys Val Leu Gln Gln Gly
170    225          230          235          240
171    His Phe Glu Asp Asp Asp Pro Glu Gly Phe Leu Gly
172          245          250
174 <210> SEQ ID NO: 5
175 <211> LENGTH: 557
176 <212> TYPE: PRT
177 <213> ORGANISM: Oryctolagus cuniculus
178 <400> SEQUENCE: 5
179    Met Lys Asn Gln Asp Lys Lys Asn Gly Ala Ala Lys Gln Pro Asn Pro
180    1          5          10          15
181    Lys Ser Ser Pro Gly Gln Pro Glu Ala Gly Ala Glu Gly Ala Gln Gly
182          20          25          30
183    Arg Pro Gly Arg Pro Ala Pro Ala Arg Glu Ala Glu Gly Ala Ser Ser
184    35          40          45
185    Gln Ala Pro Gly Arg Pro Glu Gly Ala Gln Ala Lys Thr Ala Gln Pro
186    50          55          60
187    Gly Ala Leu Cys Asp Val Ser Glu Glu Leu Ser Arg Gln Leu Glu Asp
188    65          70          75          80
189    Ile Leu Ser Thr Tyr Cys Val Asp Asn Asn Gln Gly Ala Pro Gly Glu
190          85          90          95
191    Asp Gly Val Gln Gly Glu Pro Pro Glu Pro Glu Asp Ala Glu Lys Ser
192    100          105          110
193    Arg Ala Tyr Val Ala Arg Asn Gly Glu Pro Glu Pro Gly Thr Pro Val
194    115          120          125
195    Val Asn Gly Glu Lys Glu Thr Ser Lys Ala Glu Pro Gly Thr Glu Glu

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Input Set : N:\Crif3\RULE60\10023523.raw

Output Set: N:\CRF3\02112002\J023523.raw

196		130		135		140													
197	Ile	Arg	Thr	Ser	Asp	Glu	Val	Gly	Asp	Arg	Asp	His	Arg	Arg	Pro	Gln			
198	145					150					155					160			
199	Glu	Lys	Lys	Lys	Ala	Lys	Gly	Leu	Gly	Lys	Glu	Ile	Thr	Leu	Leu	Met			
200					165						170					175			
201	Gln	Thr	Leu	Asn	Thr	Leu	Ser	Thr	Pro	Glu	Glu	Lys	Leu	Ala	Ala	Leu			
202				180					185					190					
203	Cys	Lys	Lys	Tyr	Ala	Glu	Leu	Leu	Glu	Glu	His	Arg	Asn	Ser	Gln	Lys			
204				195					200				205						
205	Gln	Met	Lys	Leu	Leu	Gln	Lys	Lys	Gln	Ser	Gln	Leu	Val	Gln	Glu	Lys			
206		210						215				220							
207	Asp	His	Leu	Arg	Gly	Glu	His	Ser	Lys	Ala	Ile	Leu	Ala	Arg	Ser	Lys			
208	225					230					235					240			
209	Leu	Glu	Ser	Leu	Cys	Arg	Glu	Leu	Gln	Arg	His	Asn	Arg	Ser	Leu	Lys			
210					245					250					255				
211	Glu	Glu	Gly	Val	Gln	Arg	Ala	Arg	Glu	Glu	Glu	Glu	Lys	Arg	Lys	Glu			
212				260					265					270					
213	Val	Thr	Ser	His	Phe	Gln	Met	Thr	Leu	Asn	Asp	Ile	Gln	Leu	Gln	Met			
214				275					280				285						
215	Glu	Gln	His	Asn	Glu	Arg	Asn	Ser	Lys	Leu	Arg	Gln	Glu	Asn	Met	Glu			
216		290						295				300							
217	Leu	Ala	Glu	Arg	Leu	Lys	Lys	Leu	Ile	Glu	Gln	Tyr	Glu	Leu	Arg	Glu			
218	305					310					315					320			
219	Glu	His	Ile	Asp	Lys	Val	Phe	Lys	His	Lys	Asp	Leu	Gln	Gln	Gln	Leu			
220					325					330					335				
221	Val	Asp	Ala	Lys	Leu	Gln	Gln	Ala	Gln	Glu	Met	Leu	Lys	Glu	Ala	Glu			
222				340						345				350					
223	Glu	Arg	His	Gln	Arg	Glu	Lys	Asp	Phe	Leu	Leu	Lys	Glu	Ala	Val	Glu			
224				355					360				365						
225	Ser	Gln	Arg	Met	Cys	Glu	Leu	Met	Lys	Gln	Gln	Glu	Thr	His	Leu	Lys			
226		370						375				380							
227	Gln	Gln	Leu	Ala	Leu	Tyr	Thr	Glu	Lys	Phe	Glu	Glu	Phe	Gln	Asn	Thr			
228	385					390					395					400			
229	Leu	Ser	Lys	Ser	Ser	Glu	Val	Phe	Thr	Thr	Phe	Lys	Gln	Glu	Met	Glu			
230					405					410					415				
231	Lys	Met	Thr	Lys	Lys	Ile	Lys	Lys	Leu	Glu	Lys	Glu	Thr	Thr	Met	Tyr			
232				420						425					430				
233	Arg	Ser	Arg	Trp	Glu	Ser	Ser	Asn	Lys	Ala	Leu	Leu	Glu	Met	Ala	Glu			
234				435				440				445							
235	Glu	Lys	Thr	Leu	Arg	Asp	Lys	Glu	Leu	Glu	Gly	Leu	Gln	Val	Lys	Ile			
236		450					455				460								
237	Gln	Arg	Leu	Glu	Lys	Leu	Cys	Arg	Ala	Leu	Gln	Thr	Glu	Arg	Asn	Asp			
238	465					470					475					480			
239	Leu	Asn	Lys	Arg	Val	Gln	Asp	Leu	Ser	Ala	Gly	Gly	Gln	Gly	Pro	Val			
240					485					490					495				
241	Ser	Asp	Ser	Gly	Pro	Glu	Arg	Arg	Pro	Glu	Pro	Ala	Thr	Thr	Ser	Lys			
242				500						505				510					
243	Glu	Gln	Gly	Val	Glu	Gly	Pro	Gly	Ala	Gln	Val	Pro	Asn	Ser	Pro	Arg			
244				515				520				525							

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/023,523

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TIME: 08:34:37

Input Set : N:\Crf3\RULE60\10023523.raw

Output Set: N:\CRF3\02112002\J023523.raw

L:59 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2

L:2730 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:53